

## ***Radon***

---

### **What is Radon?**

Radon is an odourless, tasteless and invisible radioactive gas produced by the decay of naturally occurring uranium in soil and water. Uranium is found almost everywhere on the earth's surface. As a gas, radon travels through fissures in the rock of the earth's surface and through the air spaces between particles of soil. Radon is found in outdoor and indoor air. In homes, schools and buildings, radon can enter cracks in the foundation or basement through unsealed openings around drain pipes, which may allow increased amounts of radon to move inside. Since radon is a gas and is often attached to dust, exposure occurs primarily by breathing it in. Traces of radon are present in the air of almost every home, school and building in Canada.

### **What are the Health Effects From Exposure to Radon?**

There are no immediate symptoms. Radon is a form of ionizing radiation and a proven carcinogen. Long-term exposure to radon can cause lung cancer, which is the only known effect on human health. Smokers are at higher risk of developing radon-induced lung cancer. Thus far, there is no evidence that children are at greater risk of lung cancer.

### **Canadian Radon Guidelines**

Canadian guidelines established by Health Canada recommend an action level of 800 becquerels per cubic metre (Bq/m<sup>3</sup>) radon in air. After considering the new evidence about radon and the risk of lung cancer, Health Canada is proposing a revised guideline for indoor radon gas levels. The proposed new guideline, which is being developed in partnership with the Provinces and Territories, will be released in the near future.

## **How do I know if I am at risk?**

It is possible for one home to have elevated levels of radon while a neighbouring home does not. Testing is the only way to determine levels of radon in a building. Testing can be done through do-it-yourself home test kits or through a professional testing firm. The most popular radon detectors are the charcoal canister, the electrets and the alpha track detector. These devices are exposed to the air in a home for a specified period of time, and then sent to a laboratory for analysis.

## **If high levels exist, how can I minimize my risk?**

- Because there is some risk at any level, homeowners may want to reduce their exposure to radon, regardless of levels tested
- Renovate existing basement floors, particularly earth floors.
- Seal cracks and openings in walls and floors, and around pipes and drains.
- Ventilate the sub-floor of basement floors.
- Repairs to decrease radon levels should be made by a certified contractor.